



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,736	01/09/2007	Joachim Lohr	L7725.06116	5985
52989	7590	02/25/2009		
Dickinson Wright PLLC			EXAMINER	
James E. Ledbetter, Esq.			PATEL, CHANDRAHAS B	
International Square				
1875 Eye Street, N.W., Suite 1200			ART UNIT	PAPER NUMBER
Washington, DC 20006			2416	
			MAIL DATE	DELIVERY MODE
			02/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,736	<b>Applicant(s)</b> LOHR ET AL.
	<b>Examiner</b> Chandras Patel	<b>Art Unit</b> 2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 January 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 24-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 24-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/26/2009 has been entered.

### ***Response to Arguments***

2. Applicant's arguments, see pages 9-11, filed 12/23/2008, with respect to the rejection(s) of claim(s) 24, 28, 32, 36 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ha et al. (USPN 7,099,273).

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 24-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (US-PGPUB 2002/0168945) in view of Ha et al. (USPN 7,099,273).

**Regarding claim 24**, Hwang teaches a method for controlling data transmissions in the uplink of telecommunication system, wherein a automatic repeat request (ARQ) protocol is used with synchronous retransmissions from to a Node B via an uplink data channel is used [Page 7, Para 85], and wherein the Node B performs: receiving a data packet from the user equipment [Fig. 2, 111], determining whether the data packet has been successfully decoded [Fig. 2, 120], if

it has been determined that the data packet has not been successfully decoded [Fig. 2, 120], transmitting a feedback message to the user equipment [Fig. 2, 126].

However, Hwang does not teach the feedback message triggers a synchronous retransmission of a retransmission data packet for the received data packet from the user equipment, scheduling uplink data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments, wherein the common control message restricts the Transmission Format Combination Subset (TFCS) of each of the plurality of user equipments to thereby set a maximum uplink resource common to the plurality of user equipments that each of the plurality of user equipments is allowed to utilize for uplink transmission on the uplink data channel.

Hwang teaches in the background of the related art a UMTS system and using HARQ protocol [Page 1, Para 2, 16]. Ha teaches synchronous retransmission of a retransmission data packet for the received data packet from the user equipment [**Col. 16, lines 34-48, synchronously retransmits retransmission data by adjusting the timers for synchronization of data**], scheduling uplink data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments, wherein the common control message restricts the Transmission Format Combination Subset (TFCS) of each of the plurality of user equipments to thereby set a maximum uplink resource common to the plurality of user equipments that each of the plurality of user equipments is allowed to utilize for uplink transmission on the uplink data channel [**Col. 7, line 52 – Col. 8, line 6, utilizes timers for reducing burstiness of traffic thereby limiting maximum resource each user equipment can utilize**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a UMTS system and HARQ protocol so that multi-media capabilities can be provided, synchronously retransmit packets so that data traffic can be managed effectively [Col. 16, lines 34-38] and to determine maximum uplink resource for the plurality of Node Bs so that appropriate transmission rate can be determined for packet transmission [Col. 8, lines 3-6].

**Regarding claims 25, 29, 33, 37,** Hwang further teaches the feedback messages, indicating the successful or the unsuccessful reception of a data packet, are transmitted via a control channel [**Page 4, Para 46**].

**Regarding claims 26, 34, 38,** Hwang further teaches the information in the feedback messages is sent simultaneously with scheduling related control information [**Page 4, Para 46**].

**Regarding claims 27, 31, 35, 39,** Hwang further teaches the feedback messages and scheduling related control signaling is sent on the same channelization code [**Page 4, Para 46**].

**Regarding claim 28,** Hwang teaches a Node B for controlling uplink data transmission in the uplink of a telecommunication system, in which a automatic repeat request (ARQ) protocol is used with synchronous retransmissions from to a user equipment to a Node B via an uplink data channel [**Page 7, Para 85**], the Node B comprising: a receiver operable to receive a data packet from the user equipment [**Fig. 2, 111**], a determining unit operable to determine whether the data packet has been successfully decoded [**Fig. 2, 120**], a transmitter operable to transmit a feedback message to the user equipment [**Fig. 2, 126**], if it has been determined that the data packet has not been successfully decoded [**Fig. 2, 126**].

However, Hwang does not teach the feedback message triggers a synchronous retransmission of a retransmission data packet from the user equipment, a scheduler operable to

schedule data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments wherein the common control message restricts the transmission format combination subset of each of the plurality of user equipments to determine a maximum uplink resource common to the plurality of user equipments that each of the plurality of user equipments is allowed to utilize for uplink transmission on the uplink data channel.

Hwang teaches in the background of the related art a UMTS system and using HARQ protocol [Page 1, Para 2, 16]. Ha teaches synchronous retransmission of a retransmission data packet for the received data packet from the user equipment [Col. 16, lines 34-48, **synchronously retransmits retransmission data by adjusting the timers for synchronization of data**], scheduling uplink data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments, wherein the common control message restricts the Transmission Format Combination Subset (TFCS) of each of the plurality of user equipments to thereby set a maximum uplink resource common to the plurality of user equipments that each of the plurality of user equipments is allowed to utilize for uplink transmission on the uplink data channel [Col. 7, line 52 – Col. 8, line 6, **utilizes timers for reducing burstiness of traffic thereby limiting maximum resource each user equipment can utilize**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a UMTS system and HARQ protocol so that multi-media capabilities can be provided, synchronously retransmit packets so that data traffic can be managed effectively [Col. 16, lines 34-38] and to determine maximum uplink resource for the plurality of Node Bs so that appropriate transmission rate can be determined for packet transmission [Col. 8, lines 3-6].

**Regarding claim 30**, Hwang further teaches the information in said feedback messages is combined with scheduling related control information and is jointly encoded [Page 4, Paragraph 46].

**Regarding claim 32**, Hwang teaches a method for controlling uplink data transmissions in the uplink of a telecommunications system in which a automatic repeat request (ARQ) protocol is used with synchronous retransmissions from a user equipment to a Node B via a data channel [Page 7, Para 85], and wherein the user equipment performs: transmitting a data packet to the Node B via the uplink data channel [Page 3, Para 40], receiving a feedback message from the Node B and a common control message [Page 3, Para 40], retransmitting the data packet to the Node B after a fixed time span upon having received the feedback message [Page 6, Para 75], and restricting the Transmission Format Combination Subset (TFCS) of the mobile terminal to thereby set a maximum uplink resource according to the common control message [Page 6, Para 75, last 3 bits on NAK message indicate uplink resources, i.e. transmission power increase/decrease, multicode number increase/decrease].

Hwang does not teach synchronously retransmitting a data packet.

Hwang teaches in the background of the related art a UMTS system and using HARQ protocol [Page 1, Para 2, 16]. Ha teaches synchronously retransmitting a data packet [Col. 16, lines 34-48, synchronously retransmits retransmission data by adjusting the timers for synchronization of data].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a UMTS system and HARQ protocol so that multi-media capabilities can be

provided and synchronously retransmitting data packets so that data traffic can be managed effectively [Col. 16, lines 34-38].

**Regarding claim 36,** Hwang teaches a mobile terminal for use in a telecommunications system in which a automatic repeat request (ARQ) protocol is used with synchronous retransmissions from a user equipment to a Node B via an uplink data channel [Page 7, Para 85], the user equipment comprising: a transmitter to transmit a data packet to the Node B via the uplink data channel [Page 3, Para 40], a receiver operable to receive a feedback message from the Node B and a common control message [Page 3, Para 40], wherein the transmitter is operable to retransmit the data packet to the Node B after a fixed time span upon having received the feedback message [Page 6, Para 75], and restricting the Transmission Format Combination Subset (TFCS) of the mobile terminal to thereby set a maximum uplink resource according to the common control message [Page 6, Para 75, last 3 bits on NAK message indicate uplink resources, i.e. transmission power increase/decrease, multicode number increase/decrease].

Hwang does not teach synchronously retransmitting a data packet.

Hwang teaches in the background of the related art a UMTS system and using HARQ protocol [Page 1, Para 2, 16]. Ha teaches synchronously retransmitting a data packet [Col. 16, lines 34-48, synchronously retransmits retransmission data by adjusting the timers for synchronization of data].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a UMTS system and HARQ protocol so that multi-media capabilities can be provided and synchronously retransmitting data packets so that data traffic can be managed effectively [Col. 16, lines 34-38].

**Regarding claim 40,** Hwang teaches a receiver operable to receive a data packet from the user equipment [Fig. 2, 111], a determining unit operable to determine whether the data packet has been successfully decoded [Fig. 2, 120], a transmitter operable to transmit a feedback message to the user equipment [Fig. 2, 126], if it has been determined that the data packet has not been successfully decoded [Fig. 2, 126], wherein the feedback message indicates to the user equipment to retransmit a retransmission data packet for the received data packet after a predetermined time span upon having received the feedback message [Page 6, Para 75].

However, Hwang does not teach a scheduler operable to schedule data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments wherein the common control message restricts the Transmission Format Combination Subset (TFCS) of each of the plurality of user equipments to determine a maximum uplink resource common to the plurality of user equipments.

Hwang teaches in the background of the related art a UMTS system and using HARQ protocol [Page 1, Para 2, 16]. Ha teaches scheduling uplink data transmissions of a plurality of user equipments by transmitting a common control message to the plurality of user equipments wherein the common control message restricts the transmission format combination subset of each of the plurality of user equipments to determine a maximum uplink resource common to the plurality of user equipments [Col. 7, line 52 – Col. 8, line 6, **utilizes timers for reducing burstiness of traffic thereby limiting maximum resource each user equipment can utilize**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a UMTS system and HARQ protocol so that multi-media capabilities can be

provided and to determine maximum uplink resource for the plurality of Node Bs so that appropriate transmission rate can be determined for packet transmission [Col. 8, lines 3-6].

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandras Patel whose telephone number is (571)270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/  
Supervisory Patent Examiner, Art Unit  
2416

/Chandras Patel/  
Examiner, Art Unit 2416